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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/633,637	08/05/2003	Kazuhiko Mogi	520.43012X00	6371

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ALEXANDRIA, VA 22314

EXAMINER

DINH, NGOC V

ART UNIT	PAPER NUMBER
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2189

DATE MAILED: 08/16/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/633,637

Applicant(s)

MOGI ET AL.

Examiner

NGOC V DINH

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 03 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08052003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-36 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-2, 6-26, 30-36 is/are rejected.
- 7) ☒ Claim(s) 3-5 and 27-29 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 09162004.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

INFORMATION DISCLOSURE STATEMENT

1. The Applicant's submission of the IDS filed 09/16/2004 have been considered. As required by M.P.E.P. 609 C(2), a copy of the PTOL-1449 is attached to the instant office action. However the foreign patent document 200167187 does not appear in the instant application, therefore this foreign patent is not filed.

The information disclosure statement filed 08/05/2003 fails to comply with 37 CFR 1.98(a)(1), which requires the following: (1) a list of all patents, publications, applications, or other information submitted for consideration by the Office; (2) U.S. patents and U.S. patent application publications listed in a section separately from citations of other documents; (3) the application number of the application in which the information disclosure statement is being submitted on each page of the list; (4) a column that provides a blank space next to each document to be considered, for the examiner's initials; and (5) a heading that clearly indicates that the list is an information disclosure statement. The information disclosure statement has been placed in the application file, but the information referred to therein has not been considered.

STATUS OF CLAIM FOR PRIORITY IN THE APPLICATION

2. As required by M.P.E.P. 201.14(c) acknowledgement is made of applicant's claim for priority based on an application filed 03/31/2003 in Japan.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

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3. Claims 1-2, 6, 8-11, 13-22, 24-26, 30-36 are rejected under 35 U.S.C.102 (e) as being anticipated by Blumenau et al PN 6574667.

Per claims 1, 25:

Blumenau teaches a performance management method provided for a computer system having a computer for executing a program [col. 10, lines 10-45] and a storage apparatus for storing data used in execution of said program [fig. 1], said performance management method comprising: a procedure (1) for acquiring information on a performance required for said program [load monitoring service, col. 6, lines 40-50; col. 8, lines 15-20]; a procedure (2) for acquiring mapping information of said data used in execution of said program from said computer and said storage apparatus [col. 4, lines 45-50]; a procedure (3) for acquiring utilization statistic information from said storage apparatus [col. 7, lines 27-30; col. 8, lines 15-20]; a procedure (10) for creating a plan to change settings of said storage apparatus [Applicant's specification cited in paragraph [0119]: "limit amount of access on specific port" Versus Blumenau: "preventing port overloading, co. 5, lines 48-60] by using said information acquired by said procedures (1) to (3) dynamic balancing facility, col. 6, lines 40-50; col. 7, lines 55-65]; and a procedure (11) for issuing a request for a setting change according to said plan to change settings to said storage apparatus [function MIN[portload], find port with least expected loading them assigned it to host, col. 15, lines 30-65; col. 11, lines 25-30; col. 9, lines 17-30].

In summary, Blumenau teaches a computer for executing a program and a storage apparatus used for dynamically balancing workload on storage system. His computer comprises a program with plural procedures such as: acquiring performance, mapping information [col. 8, lines 15-20; col. 11, lines 35-55; col. 15-16]; acquiring statistic information from storage apparatus [load statistic and diagnostic information, col. 8, lines 15-20];

Finally, his computer will execute a procedure FUNCTION MIN(PORTLOAD), based on the collected statistic from the procedures [load statistic and diagnostic information, estimate of the host loading on each port, col. 15, lines 20-25] as mentioned above, in order to dynamically change the setting of the storage apparatus [e.g., col. 15, lines 30-65; col. 15, lines 30-65; col. 11, lines 25-30]. By changing the setting of the storage apparatus,

Blumenau means “preventing port overloading” [col. 5, lines 48-60], as Applicant’s specification in paragraph [0119] “limit amount of access on specific port].

Per claims 2, 26:

a procedure (4) for acquiring information on a priority level of said program [col. 11, lines 45-65]; wherein said information acquired by said procedure (4) is also used in said procedure (10) to create said plan to change settings of said storage apparatus [col. 11, lines 15-50].

Per claims 6, 22, 11:

storage apparatus has a port [fig. 1] for connecting said storage apparatus to an external apparatus and has a priority-access control function for limiting an amount of processing making accesses through said port [col. 5, lines 48-65]; and said plan created in said procedure (10) to change settings of said storage apparatus is a plan to change a set value of said priority-access control function [col. 11, lines 20-25; col. 11, lines 15-50].

Per claims 8, 13, 24:

said storage apparatus has at least two physical storage [fig. 1] means, a function of presenting a logical storage area using a storage area of said physical storage means and a physical storage location modification function of dynamically changing a relation associating said logical storage area with said storage area of said physical storage means [col. 4, lines 39-55]; and said plan created in said procedure (10) to change settings of said storage apparatus is a plan to issue a command for changing said relation associating said logical storage area with said storage area of said physical storage means by execution of said physical storage location modification function [col. 4, lines 40-55; col. 6, lines 40-50].

Per claims 9, 14, 20:

Blumenau teaches the claimed limitations as mentioned above and further teaches: a performance management method/system provided for a computer system having a first computer 60, fig. 1] for operating a data base management system, a second computer [50, fig. 1]for executing a program issuing a request for a process to said database management system and a storage apparatus for storing data handled by said database management system.

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Per claims 10, 15, 21, 32:

said first and second computers are one and the same computer. [fig. 1].

Per claim 16:

said computer system further comprising a storage control apparatus connected between said first computer and said storage apparatus and used for controlling data transfers between said first computer and said storage apparatus [fig. 1].

Per claims 17-19, 33-35:

A computer system for managing performance of a storage apparatus, wherein said first or second computer, wherein storage apparatus, wherein storage control implements a function of collecting said information of said management apparatus, creating said plan to change settings of said storage apparatus and issuing a command for changing settings in accordance with said plan to change settings of said storage apparatus to said storage apparatus [fig. 1; col. 8, lines 15-20; col. 15, lines 30-65; col. 11, lines 25-30; col. 9, lines 17-30].

Per claim 18:

said storage apparatus implements a function of collecting said information of said storage apparatus, creating said plan to change settings of said storage apparatus and issuing a command for changing settings in accordance with said plan to change settings of said storage apparatus to said storage apparatus [col. 8, lines 15-20; col. 15, lines 30-65; col. 11, lines 25-30; col. 9, lines 17-30].

Per claims 30, 36:

a computer-readable recording medium for recording said performance management program provided for a computer system [fig. 1].

Per claim 31:

Blumenau teaches the claimed limitation as mentioned above and further teaches; a storage control apparatus connected between said first computer and said storage apparatus and used for controlling data transfers between said first computer and said storage apparatus [fig. 1].

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 7, 12, 23 are rejected under 35 U.S.C 103(a) as being unpatentable over Blumenau, and in view of Galbraith et al US 2002/0069322.

Per claims 7, 12, 23:

Blumenau teaches the claimed limitation as noted above. Blumenau further teaches storage apparatus has a data cache segmented into several cache areas [32, fig. 1]

Blumenau does not teach the storage has a function of dynamically allocating said cache area onto said segmented data cache, removing said cache area from said segmented data cache and changing the size of said cache area of said segmented data cache

Galbraith teaches a DASD system comprises a function of dynamically allocating said cache area onto said segmented data cache [abstract], removing said cache area [LRU] from said segmented data cache and changing the size of said cache area of said segmented data cache [col. 6, [0072], col. 7, [0076]].

It would have been obvious to one having ordinary skill in the art at the time the invention was made to further include Galbraith 's teaching into Blumenau disk system. Doing so would allow the cache dynamically increase its size [0072].

Allowable Subject Matter

5. Claims 3-5, 27-29 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The primary distinction over the prior art of record of claims 3, 27 in the instant application is the combination with the inclusion of the limitation of "said procedure (1) includes a process for acquiring a processing execution time required for said program, a method for estimating a processing execution time and the amount of data supplied to said program as an input".

The primary distinction over the prior art of record of claims 5, 29 in the instant application is the combination with the inclusion of the limitation of "said procedure (1) includes a process for acquiring information on a processing response time required for said program and information on an actually measured value of said processing response time on said program; and said procedure (10) uses said information on a processing response time required for said program and said information on an actually measured value of said processing response time on said program in creating said plan to change settings of said storage apparatus.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- a. Honma et al US 204/0073677 discloses computer system using a storage area network.
- b. Kaneda et al US 2003/0204583 discloses operation management system.
- c. Fisk US 2004/0054850 discloses storage management.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ngoc Dinh whose telephone number is (571) 272-4191. The examiner can normally be reached on Monday-Friday 8:30 AM-5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Donald A. Sparks, can be reached on (571) 272-4201. The fax phone numbers for the organization where this application or proceeding is assigned are 571-273-8300 for regular communications and (703) 746-7238 for After Final communications.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (571) 272-2100.

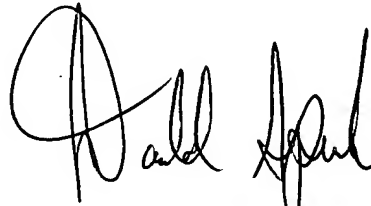


NGOC DINH

Patent Examiner

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August 11, 2005



DONALD SPARKS
SUPERVISORY PATENT EXAMINER